

Remarks

Claims 11-18 are currently pending in the Application and Claim 19 is newly presented herein.

Claim amendments

This response amends Claims 11 and 14-16. Support for the amendments can be found, for example, on pages 5-7 and Figures 2a-2h of the specification. No new matter has been added.

New Claim

This response adds new Claim 19. The new claims are used to broaden the scope of the invention and are **not** offered in response to the Examiner's rejections. This response adds new Claims 19 to more completely claim the invention. Support for the new Claim 19 can be found, for example, on page 7, lines 5-9 and Figures 2a-2h of the specification. No new matter has been added.

Specification objection

The Examiner objects to the specification for allegedly not providing support for the limitations in Claim 14. However, the Examiner concedes that the specification does provide support for the second conducting layer having a bottom portion that is narrower than the top portion of the first conducting layer. Applicants submit that Claim 14 has been amended to recite features provided by the specification as conceded by the Examiner. Applicants respectfully request that the objection be withdrawn.

35 U.S.C. §112, second paragraph, rejection

Claims 14-15 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. According to the Examiner the top portion as recited in Claim 14 is indefinite. Applicants submit that Claim 14 has been amended as stated above and respectfully request that the objection be withdrawn.

35 U.S.C. §102(b) rejection in view of Huang (U.S. Patent No. 6,248,631)

Claims 11-13 and 15-18 stand rejected under 35 U.S.C. §102(b) as being anticipated by Huang. Applicants respectfully disagree.

The Examiner is reminded that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP 2131 quoting *Verdegaal Bros. V. Union Oil Co, of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The Examiner is also reminded that “[the] identical invention must be shown in as complete detail as is contained in the ... claim.” MPEP 2131 quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The Applicants submit that Huang does not teach each and every element as set forth in the rejected claims. In particular:

Claim 11

Applicants submit that Huang does not disclose, suggest or teach, *inter alia*, at least the following features recited by amended Claim 1 of the present application:

“...the sidewall and portions of the top surface being covered by a dielectric material; and a second conducting layer with a Bird’s Beak edge ...” (emphasis added)

According to Huang,

“FIG. 3J shows that the oxide structure 326 is partially removed so that the polysilicon structure extends vertically beyond the oxide structure 326. A portion of the oxide structure may be removed through a dipping process. In the resulting floating gate, a thickness at lateral ends adjacent the oxide structures 326 is greater than the remainder of the floating gate. The thickness of the floating gate decreases continuously to a middle region of the floating gate.”

See column 9, lines 8-16 of Huang.

Although Huang discloses oxide structure “326” covering the sidewalls of the layer “304,” Huang does not teach, disclose or suggest “portions of the top surface being covered by a dielectric material” as recited in amended Claim 11.

See column 9, lines 8-16 and Figures 3J-3L of Huang. Hence, Claim 11 is believed to be patentable over Huang and should be allowed by the Examiner. Claims 12-13 and 15, at least based on their dependency on Claim 11, are also believed to be patentable over Huang.

Further, Huang does not teach disclose or suggest any “conducting layer with a Bird’s Beak edge” as recited in amended Claim 11. Hence, Claim 11 is believed to be patentable over Huang and should be allowed by the Examiner. Claims 12-13 and 15, at least based on their dependency on Claim 11, are also believed to be patentable over Huang.

Claim 16

Applicants submit that, at least for the reasons stated above, Huang does not teach, disclose or suggest “portions of the top surface being covered by a dielectric material” as recited in amended Claim 16. Hence, Claim 16 is believed to be patentable over Huang and should be allowed by the Examiner. Claims 17-19, at least based on their dependency on Claim 16, are also believed to be patentable over Huang.

Further, Huang does not teach disclose or suggest a “conducting layer with ... a concave sidewall” as recited in amended Claim 16. Hence, Claim 16 is believed to be patentable over Huang and should be allowed by the Examiner. Claims 17-19, at least based on their dependency on Claim 19, are also believed to be patentable over Huang.

35 U.S.C. §102(b) rejection in view of Chang (U.S. Patent No. 6,300,196)

Claims 11-14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Chang. Applicants respectfully disagree. The Applicants submit that Chang does not teach each and every element as set forth in the rejected claims. In particular:

Claim 11

Applicants submit that Chang does not disclose, suggest or teach, *inter alia*, at least the following features recited by amended Claim 11 of the present application:

“...the sidewall and portions of the top surface being covered by a dielectric material; and a second conducting layer with a Bird’s Beak edge ...” (emphasis added)

According to Chang,

“[t]he dielectric layer 112 is formed over the semiconductor substrate 100. An opening 114 is formed in the dielectric layer 112. The conductive layer 108 having a top surface lower than that of the dielectric layer 112 is formed in the opening 114.”

See column 5, lines 52-57 of Chang.

Although Chang discloses a dielectric layer “112” covering the sidewalls of the layer “108,” Chang does not teach, disclose or suggest that “portions of the top surface being covered by a dielectric material,” as recited in amended Claim 11. See column 5, lines 52-57 and Figures 5A-5H of Chang. Hence, Claim 11 is believed to be patentable over Chang and should be allowed by the Examiner. Claims 13-14, at least based on their dependency on Claim 11, are also believed to be patentable over Chang.

Further, Chang does not teach, disclose or suggest any “conducting layer with a Bird’s Beak edge” as recited in amended Claim 11. Hence, Claim 11 is believed to be patentable over Huang and should be allowed by the Examiner. Claims 13-14, at least based on their dependency on Claim 11, are also believed to be patentable over Chang.

35 U.S.C. §103(a) Rejection

Claim 12 stands rejected under 35 U.S.C. §103(a) as being obvious in view of Chang and further in view of Huang.

Applicants submit that Claim 12, at least based on its dependency on Claim 11, is believed to be patentable over Chang and Huang, because there is no prima facie 35 USC 103(a) case based on Chang, as shown above, and because the Examiner has not shown to the Applicants where Huang discloses, teaches or suggests the features not found in Chang.

Conclusion

In view of the above, reconsideration and allowance of all the claims are respectfully solicited.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136 (a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

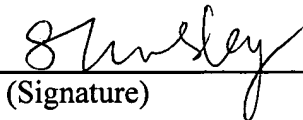
I hereby certify that this correspondence is being deposited with the United States Post Office with sufficient postage as first class mail in an envelope addressed to Mail Stop Amendments
Commissioner for Patents POB 1450,
Alexandria, VA 22313-1450 on

September 2, 2005

(Date of Deposit)

Shannon Tinsley

(Name of Person Signing)



(Signature)

September 2, 2005

(Date)

Respectfully submitted,



Alessandro Steinfl

Attorney for Applicants

Reg. No. 56,448

LADAS & PARRY

5670 Wilshire Boulevard, Suite 2100

Los Angeles, California 90036

(323) 934-2300